

OIB - P-3 Orion 04/07/18 Science Report

Aircraft: [P-3 Orion - WFF](#) ([See full schedule](#))

Date: Saturday, April 7, 2018

Mission: OIB

Mission Location: Greenland

Mission Summary:

OIB completed the high priority North Beaufort Loop mission. This flight was designed to sample sea ice in the western Arctic Basin along north-south gradients in the Beaufort Sea, and to improve gaps in previous coverage primarily in the northeastern Beaufort. We overflew three mooring sites of the Beaufort Gyre Exploration Project equipped with upward-looking sonar, known as GAM-1, BGOS-B and BGOS-C. Parts of the eastern and western legs were flown along ICESat-2 ground tracks. In addition to Level-1 Requirements SI1 and SI2 this mission addresses sea ice level projected requirement SIP2d by extending sea ice baseline observations to the southern Chukchi Sea north of the Bering Strait. The mission was modified to overfly a buoy cluster at the request of Melinda Webster and Ignatius Rigor. The line was also modified to underfly a Sentinel-3A track at the request of Larry Connor. OIB entered the Sentinel-3A data line 7 minutes before the satellite passed over at 22:26:57Z.

Weather was good for most of the mission but began to deteriorate around the last half of the Sentinel-3A line. We lowered the flight altitude to get under the clouds which enabled good data to continue to be collected throughout the line. All instruments performed well during the flight making for an overall excellent day.

Data Volumes

ATM T6: 108 Gb

ATM T7: 122 Gb

CAMBOT: 77 Gb

FLIR: 11 Gb

KT19: 10 Mb

DMS: 81.9 Gb

Snow radar: 1.07 Tb

MCoRDS: No data collected

Accumulation radar: No data collected

Data on: 1803

Data off: 2313

Submitted by: Nathan T. Kurtz on 04/07/18

File:

 [NorthBeaufortLoop.pdf](#)

Related Flight Report:

P-3 Orion 04/07/18 - 04/08/18

Flight Number: 2018 OIB Arctic -Science #6

Payload Configuration: 2018 OIB Arctic

Nav Data Collected: No

Total Flight Time: 8.1 hours

Submitted by: Janet Letchworth on 04/08/18

Flight Segments:

From:	PAFA	To:	PAFA
Start:	04/07/18 16:53 Z	Finish:	04/08/18 01:00 Z
Flight Time:	8.1 hours		
Log Number:	18P008	PI:	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Comments: This flight collected observations along the North Beaufort Loop.

Flight Hour Summary:

	18P008
Flight Hours Approved in SOFRS	201.2
Total Used	190.4
Total Remaining	10.8

18P008 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
03/13/18	2018 OIB Arctic - Airworthiness Test Flight	Other	0.8	0.8	200.4	
03/14/18	2018 OIB Arctic - Project Test Flight - Laser	Other	2.6	3.4	197.8	
03/15/18	2018 OIB Arctic - Project Test Flight - Radar	Other	5.7	9.1	192.1	
03/18/18	2018 OIB Arctic - delta ATF	Other	0.8	9.9	191.3	
03/20/18	2018 OIB Arctic - Transit to Thule	Transit	7.9	17.8	183.4	
03/22/18	2018 OIB Arctic - Science #1	Science	7.8	25.6	175.6	
04/03/18	2018 OIB Arctic - Science #2	Science	7.9	33.5	167.7	
04/04/18	2018 OIB Arctic - Science #3	Science	8.1	41.6	159.6	
04/05/18	2018 OIB Arctic - Science #4	Science	8	49.6	151.6	
04/06/18	2018 OIB Arctic - Science #5	Science	8.8	58.4	142.8	
04/07/18 - 04/08/18	2018 OIB Arctic - Science #6	Science	8.1	66.5	134.7	
04/08/18 - 04/09/18	2018 OIB Arctic - Science #7	Science	8.3	74.8	126.4	
04/14/18 - 04/15/18	2018 OIB Arctic - Science #8	Science	7.7	82.5	118.7	
04/16/18	2018 OIB Arctic - Science #9	Science	8.2	90.7	110.5	
04/18/18	2018 OIB Arctic - Science #10	Science	8	98.7	102.5	
04/19/18	2018 OIB Arctic - Science #11	Science	7.7	106.4	94.8	
04/20/18	2018 OIB Arctic - Transit to Kanger	Transit	4.2	110.6	90.6	
04/21/18	2018 OIB Arctic - Science #12	Science	8.1	118.7	82.5	
04/22/18	2018 OIB Arctic - Science #13	Science	6.5	125.2	76	
04/23/18	2018 OIB Arctic - Science #14	Science	8.2	133.4	67.8	
04/25/18	2018 OIB Arctic - Science #15	Science	7.7	141.1	60.1	

04/26/18	2018 OIB Arctic - Science #16	Science	8.8	149.9	51.3
04/27/18	2018 OIB Arctic - Science #17	Science	8	157.9	43.3
04/29/18	2018 OIB Arctic - Science #18	Science	8.3	166.2	35
04/30/18	2018 OIB Arctic - Science #19	Science	9.3	175.5	25.7
05/01/18	2018 OIB Arctic - Science #20	Science	7.4	182.9	18.3
05/03/18	2018 OIB Arctic - Return Transit Leg #1	Transit	6.4	189.3	11.9
05/03/18	2018 OIB Arctic - Return Transit Leg #2	Transit	0.6	189.9	11.3
05/03/18	2018 OIB Arctic - Return Transit Leg #3	Transit	0.5	190.4	10.8

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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Page Editor: Brad Bulger

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